

Amendments to the Specification:

Please replace the paragraph beginning on page 9, line 14, with the following rewritten paragraph:

Hydrocarbon polyols can be prepared from ethylenically unsaturated monomers, such as ethylene, isobutylene, and 1,3-butadiene. Examples include polybutadiene polyols Poly-bd R-45 HT (Atochem) and DIFOL (Amoco Corp.); and ~~Kraton~~ KRATON[®] L polyols (Shell Chemical Co.).

Please replace the paragraph beginning on page 10, line 5, with the following rewritten paragraph:

Preferred curatives can be selected from aliphatic diols, such as 1,4-butanediol (BDO), hydroquinone-bis-hydroxyethyl ether (HQEE), 1,4-cyclohexane dimethanol (CHDM), aliphatic triols, such as trimethylolpropane, and aliphatic tetrols, such as the commercial product ~~Quadrol~~ QUADROL[®] (BASF Corp.). Useful aromatic diamines include, for example, 4,4'-methylenedianiline (MDA), 2,2',5-trichloro-4,4'-methylenediamines, naphthalene-1,5-diamine, ortho, meta, and para-phenylene diamines, toluene-2,4-diamine, dichlorobenzidine, and diphenylether-4,4'-diamine, including their derivatives and mixtures.

Please replace the paragraph beginning on page 10, line 12, with the following rewritten paragraph:

Representative of the most preferred materials are aliphatic diols, such as HQEE, BDO, and CHDM, and diamines, such as 4,4'-methylene-bis(3-chloroaniline) (MBCA), 4,4'-methylene-bis(3-chloro-2,6-diethylaniline) (MCDEA), diethyl toluene diamine (DETDA),

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tertiary butyl toluene diamine (TBTDA), dimethylthio-toluene diamine (~~Ethacure~~TM ETHACURE[®] 300 from Albemarle Corporation), trimethylene glycol di-p-amino-benzoate (~~Polacure~~ POLACURETM 740 from Air Products Corporation), 1,2-bis(2-aminophenylthio)ethane (~~Cyanacure~~ CYANACURETM from American Cyanamid Company), methylenedianiline (MDA), and methylenedianiline-sodium chloride complex (~~Caytur~~ CAYTUR[®] 21 and ~~Caytur~~ CAYTUR 31, from Crompton Corporation).

Please replace the paragraph beginning on page 10, line 20, with the following rewritten paragraph:

Among the polyurethanes, the two part castable urethane made from polyether-isocyanate or polyester-isocyanate prepolymers cured with organic diamine or polyol materials are most preferred, as represented by ~~Adiprene~~ ADIPRENE[®] and ~~Vibrathane~~ VIBRATHANE[®] prepolymers (trademarks of Crompton Corporation).

Please replace the first two paragraphs of Example 1 on page 11, with the following rewritten paragraphs:

~~Vibrathane~~ VIBRATHANE 8523, a commercially available MDI terminated polyester prepolymer (Crompton Corporation) with 6.9 wt % reactive NCO content was used to evaluate elastomers containing two non-reactive polydimethylsiloxane (PDMS) additives. The additives were Wacker SWS-101-10,000 (W-10) and Wacker SWS-101-60,000 (W-60). The 10,000 and 60,000 refer to the viscosity (cst) of the fluids.

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Each additive was added to a container of ~~Vibrathane~~ VIBRATHANE 8523 at a level of 1.3% and mixed in thoroughly. A third container was carried along as a control with ~~Vibrathane~~ VIBRATHANE 8523, but no additive. The three containers were allowed to remain at 158° F (70° C) overnight (16 hours). Each container was inspected in the morning before elastomer preparation. No evidence of separation or increase in viscosity was found. The mixture was placed in a vacuum chamber and less than 10 millibars of vacuum was applied. No appreciable gas evolution was noted, indicating that the additive had been dry, and that there had been no other source of moisture contamination.

Please replace Table I beginning on page 12, line 3, with the following rewritten

Table I:

| Table I | | | |
|-------------------|--|---|---|
| Test | Vibrathane <u>VIBRATHANE</u> 8523 Control | Vibrathane <u>VIBRATHANE</u> 8523 + 1.3 phr W- 10 | Vibrathane <u>VIBRATHANE</u> 8523 + 1.3 phr W- 60 |
| Friction (u) | | | |
| 50 psi load | .73 | .93 | .78 |
| 100 psi load | .86 | .88 | .86 |
| 200 psi load | .89 | 1.11 | 1.04 |
| DIN Abrasion | | | |
| Volume Loss | 46.7 | 10.0 | 13.4 |
| Abrasion Index | 243 | 1133 | 860 |
| | | | |
| Split Tear (D470) | 160 | 160 | 150 |
| Trouser Tear | 250 | 250 | 240 |

Please replace the paragraph beginning on page 12, line 18, with the following rewritten paragraph:

Two primary hydroxyl-containing reactive siloxane fluids (~~Silwet~~ SILWET[®] 7230 and ~~Silwet~~ SILWET 8620, Crompton Corporation) were tested by the same procedure as in Example 1. One of these, ~~Silwet~~ SILWET 7230, caused the prepolymer to rise excessively in viscosity and form some gelled areas, as the result of its high functionality. The other, ~~Silwet~~ SILWET 8620, is difunctional and is thus similar to those disclosed in U.S. Patent No. 4,057,595. It had little effect on the viscosity, but lowered the % NCO by about 0.25 % to

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about 6.65 %. Results for the ~~Silwet~~ SILWET 8620 are shown below in Table II.

Please replace the paragraph beginning on page 13, line 2, including Table II, with the following rewritten paragraph:

Another hydroxy-containing siloxane fluid tested was ~~Silwet~~ SILWET 8500, which contains less reactive, secondary hydroxyl groups. This additive was tested at a higher, 3.0 %, level, but results were still inferior to those obtained with the non-reactive W-10 and W-60 at a level of only 1.3 %. Testing was performed as in Example 1. See Table II below for results:

| Table II | | |
|-------------------|---|---|
| Test | Vibrathane <u>VIBRATHANE</u> 8523 + 2.2 phr Silwet <u>SILWET</u> 8620 | Vibrathane <u>VIBRATHANE</u> 8523 + 3.0 phr Silwet <u>SILWET</u> 8500 |
| Friction (u) | | |
| 50 psi load | 1.8 | 1.06 |
| 100 psi load | 1.7 | 0.65 |
| 200 psi load | 1.35 | 1.09 |
| DIN Abrasion | | |
| Volume Loss | 47.9 | 27.8 |
| Abrasion Index | 238 | 408 |
| | | |
| Split Tear (D470) | 46 | 130 |
| Trouser Tear | 74 | 220 |

Please replace the paragraph beginning on page 13, line 21, including Tables III and IV, with the following rewritten paragraph:

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The W-10 was tested at higher levels in ~~Vibrathane~~ VIBRATHANE 8523 and in ~~Vibrathane~~ VIBRATHANE 8071, a TDI terminated polyester prepolymer, which was cured with 4,4'-methylenedichloroaniline (MOCA). This testing was performed to determine if tear strength falls off at higher concentrations, as shown in U.S. Patent No. 5,605,657. The procedure was the same as in Example 1, except that the prepolymers were not left at 158° F overnight prior to casting into elastomers. In addition, the ~~Vibrathane~~ VIBRATHANE 8071 used molds and cure temperatures of 212° F (100° C) instead of 240° F. The results are shown in Tables III and IV. The control data in Table IV are taken from the manufacturer's data sheet.

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| Table III Vibrathane <u>VIBRATHANE</u> 8523 | | | | | |
|--|--------------------|------------------|------------------|------------------|------------------|
| Test | Control No W-10 | 1.5 phr W- 10 | 3.0 phr W- 10 | 4.5 phr W- 10 | 6.0 phr W- 10 |
| Split Tear | 160 | 150 | 160 | 140 | 140 |
| Trouser Tear | 250 | 300 | 290 | 290 | 290 |

| Table IV Vibrathane <u>VIBRATHANE</u> 8071 | | | | | |
|---|--|------------------|------------------|------------------|------------------|
| Test | Control No W-10 (from data sheet) | 1.5 phr W- 10 | 3.0 phr W- 10 | 4.5 phr W- 10 | 6.0 phr W- 10 |
| 100 % Modulus | 370 | 430 | 440 | 370 | 400 |
| 300 % Modulus | 510 | 630 | 660 | 600 | 590 |
| Tensile | 5300 | 6280 | 6180 | 5710 | 5990 |
| Elongation % | 700 | 740 | 750 | 760 | 750 |
| Split Tear | 55 | 73 | 78 | 85 | 78 |
| Trouser Tear | - | 230 | 210 | 200 | 230 |

Please replace the paragraph beginning on page 15, line 7, including Table V, with the following rewritten paragraph:

Adiprene ADIPRENE LF 1 900, a low free TDI polyester prepolymer was used with and without 5 phr of W-10 additive. The prepolymer/W-10 mixture was cured with MOCA in the same manner as that used for ~~Vibrathane~~ VIBRATHANE 8071 in Example 2. The brakes

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were tested by a skater on downhill braking against a commercial SBR-NR rubber brake. All testing was done on the same day and under the same conditions. The results are shown in Table V.

| Table V | | | |
|----------------------|--|---|---------|
| | <u>Adiprene</u> <u>ADIPRENE LF1900</u> No W-10 | <u>Adiprene</u> <u>ADIPRENE LF1900</u> 5 phr W-10 | SBR-NR |
| Hardness, Shore A | 91 | 90 | 90 |
| Initial Brake Weight | 60.8 gm | 60.0 gm | 70.2 gm |
| Final Brake Weight | 31.8 gm | 52.2 gm | 50.5 gm |
| Loss | 29.0 gm | 7.8 gm | 19.7 gm |
| Abrasion Index | 100 | 366 | 169 |